**M30-3 Polygons Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

C2 Quadrilaterals Assignment

1. *Determine the most specific name for each quadrilateral below. Write down a few key characteristics of each quadrilateral. The first one has been done for you.*

 Square

* All sides equal
* All right angles
* Diagonals equal
* Diagonals perpendicular











1. Complete the following table.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Parallelogram** | **Rectangle** | **Rhombus** | **Square** | **Trapezoid** | **Isosceles Trapezoid** | **Right Trapezoid** | **Kite** |
| **SIDE PROPERTIES** |  |  |  |  |  |  |  |  |
| Opposite sides parallel(How many pairs?) |  |  |  |  |  |  |  |  |
| All sides equal |  |  |  |  |  |  |  |  |
| Opposite sides equal(How many pairs?) |  |  |  |  |  |  |  |  |
| Adjacent sides equal(How many pairs?) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **ANGLE PROPERTIES** |  |  |  |  |  |  |  |  |
| All angles equal |  |  |  |  |  |  |  |  |
| Opposite angles equal |  |  |  |  |  |  |  |  |
| Right Angles |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **DIAGONAL PROPERTIES** |  |  |  |  |  |  |  |  |
| Diagonals equal |  |  |  |  |  |  |  |  |
| Diagonals bisect each other |  |  |  |  |  |  |  |  |
| Diagonals perpendicular |  |  |  |  |  |  |  |  |

1. Determine the missing values and name the quadrilateral.



a) b)

c) AC = \_\_\_ , = \_\_\_ , = \_\_\_ d) WX = \_\_\_ , = \_\_\_





e) Determine all missing angles. f) = \_\_\_



g) PR = \_\_\_\_\_ h) WX = \_\_\_\_\_

i) KL = \_\_\_\_\_

1. A farmer plans to build an enclosure behind a barn, between existing corrals. He wants to add a fence from point C that runs parallel to the barn (wall AB) towards fence AD.



a) How can he ensure that the new fence is parallel to AB?

b) What type of quadrilateral will be formed by the enclosure when the new fence is built?

c) Determine all of the angles inside of the new enclosure.

1. What is the perimeter of parallelogram ABCD? Determine all of the angles inside of parallelogram ABCD.



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1. Math at Work 12 pg. 241-242: 1, 3-6